Cyberpunk as a Means of Expressing High-tech Counterculture Formation

Lect. Mohammed Ali Hussein

moali782000@gmail.com

General Directorate of Education in Al-Anbar

Abstract:

The dystopian vision of a world dominated by digital technologies embodies the fear of the uncontrolled development of science and technology and its possible consequences. Cyberpunk writers wonder what transformations society can undergo under the influence of modern technologies and whether these changes will be beneficial. This research presents an overview of cyberpunk as a sub-genre of science fiction in 1980s. It defines cyberpunk and its main parts 'cyber' and 'punk' according to its four founders: Bruce Bethke, Gardner Dozois, Bruce Sterling and William Gibson. It explains the domain of cyberpunk and the characteristics that make it different from the previous movements. The research also sheds light on post-cyberpunk the subsequent movement in 1990s. It studies the specific images of the depicted worlds and the problem of the heroes inhabiting them constitutes one of the possible, though not very optimistic, variants of the future. The visions of the technologized future designed by cyberpunk authors can be interpreted both as an expression of a fascination with technical innovations and anxiety towards the socio-cultural changes to which these inventions may contribute.

Keywords: **Cyberpunk, post-cyberpunk, science fiction, Bruce Sterling and William Gibson.**

السايبربانك كوسيلة للتعبير عن تشكيل الثقافة المضادة ذات التقنية العالية

م. محمد علي حسين

مديرية تربية الانبار

الملخص:

تهيمن الرؤية التشاؤمية والخوف من التطور الهائل للعلم والتكنولوجيا وعواقبه المحتملة على عالم التقنيات الرقمية، ويتساءل كُتاب السايبربانك (Cyberpunk) عن التغيرات التي يمكن أن يمر بها المجتمع تحت تأثير التقنيات الحديثة وفيما إذا كانت هذه التغيرات ستكون مفيدة. يقدم هذا البحث لمحة عامة عن السايبربانك لكونه نوع فرعي من قصص الخيال العلمي في الثمانينيات، وهي تحدد السايبربانك وأجزائها الرئيسية "cyber" و "punk" وفقًا لروادها الأربعة: بروس بيث و جاردنر دوزوا و بروس ستيرلنج و وليام جيبسون. ويناقش البحث كذلك مجال السايبربانك والخصائص التي تجعله مختلفًا عن الحركات السابقة. ويسلط البحث الضوء على ما بعد السايبربانك أي الحركة اللاحقة في التسعينيات أيضًا. ويدرس الصور المحددة للعوالم المصورة ومشاكل الأبطال الذين يسكنونها والتي تشكل واحدًا من المتغيرات المحتملة للمستقبل. كما يمكن تفسير رؤى المستقبل التكنولوجي التي صممها مؤلفو السايبربانك على أنها تعبير عن الانبهار بالابتكارات التقنية والقلق تجاه التغيرات الاجتماعية والثقافية التي قد تساهم فيها هذه الاختراعات.

الكلمات المفتاحية: السايبربانك، مابعد السايبربانك ، خيال علمي ، بروس ستيرلنج و وليام جيبسون.

Introduction

In the 20th century with the interaction of high technology, literature, the industries of cinema and TV productions, the genre of science fiction turned into a significant part of popular literature. An extensive review of certain novels of science fiction like Samuel Delany's *Babel 1-7-*(1966), Philip Dick's *Do Androids Dream of Electric Sheep* (1968), and movies like *Terminator*, *The Matrix Trilogy*, *Blade Runner* and TV productions reveal that close connections between science fiction and technological advancements brought about the production of novels about cybernetics, virtual reality, computer technologies, and genetic engineering.

Consequently, the 20th century has seen the enhancement of science fiction. Since the 20th century has turned into a time of social changes and the improvement in technological fields lined up with these turns of events, science fiction has been known as the literature of changes as Damien Walter (2012) in his article *Why Science Fiction is the literature of change* says that "SF provides one of the best ways of examining the rapidly changing world around us." (para. 4)

Cyberpunk was a response to the regression in science fiction in the late 1970s. It was believed then that the science fiction as a genre was exhausted. The authors of that time lacked original ideas, so they began to duplicate formulas developed in the 1950s and 1960s. As a result, the work of science fiction has become secondary and schematic, presenting cliché plots and typical characters, as well as focusing on similar, constantly recurring problems and issues. Works from that period were usually characterized by a lack of criticism and a tendency to present utopian visions of the world. They expressed faith in the unlimited technological development of mankind, which is to prevent any problems caused by civilization. There were many advanced inventions in the worlds presented, but their influence both per individual as well as society as a whole was rather unpretending. Despite the use of increasingly sophisticated technologies and gadgets in everyday life, civilization functioned in a similar way as in the first half of 20th century. An attempt to revitalize the science fiction genre, consisting in the search for new topics and ways of writing, was undertaken in the early 1980s by a young generation of writers whose attention was drawn to computer technologies, then difficult to access for most users. They used motifs and props typical of conventional science fiction, such as the rebellion of machines or the vision of a technical world, but showed them in new contexts, focusing on different problems and issues. The direction of the emerging trend was set by William Gibson, Rudy Rucker, Lewis Shiner, John Shirley and Bruce Sterling, who in the early 1980s formed the critical-literary formation The Movement.

Cyberpunk science fiction is the evident successor to the earlier traditional genre of science fiction writing. Cyberpunk portrays the depressing climate of the 1980s in the Western world which was stunned by the fast advancement in technology. It was also frustrated and restless about the negative economic and social circumstances. Cyberpunk writers expressed their dissatisfaction and excitement immediately by bringing together the settings and characters which address the lower classes of society in relation to advanced technology.

As a term cyberpunk does not refer to literary science fiction only, but rather reflects a sub-culture and social movement which were dominant after 1980s in the Western World. The most fundamental characteristic of this genre is presented by the two parts of the word itself "cyber" and "punk". It is to bring together the lower social classes (lives of characters) and advanced technology. In cyberpunk science fiction, the invasive advancement of all sorts of technology, like bio-technology, information technology and computer technology, and fragmented and isolated characters in such an extremely advanced world are the domain where the events take place.

It additionally presents the obscuring of the limits between high and well known social items, between the normal and the counterfeit and between the genuine and the virtual, that make these works portray the social environment of the late-20th century which is alluded to as the Postmodern Era. Numerous cyberpunk stories show an interest in the possibility of "the cyberspace", another world comprising of data which people can access by means of a direct bodily linkage as Gibson, in his famous novel *Neuromancer,* describes "the consensual hallucination that was the matrix" (1984, p. 5). In numerous cyberpunk stories, similar portrayals of virtual reality can be found such as Vernor Vinge, who had found the idea in his novella *True Names* and called it "the Other World" (1981, p.2). In cyberpunk, technology turns into a way of getting away from the flesh, while the body turns into a jail of the consciousness.

After the 1980s, Cyberpunk has been not the only emerging sub-genre of science fiction. During the 1990s, many other forms of science fiction appeared which engaged in questions relevant to biotechnology, nanotechnology and environmental issues. Post-Cyberpunk that has developed from Cyberpunk is also an additional movement in the 1990s. It spotlights on technological evolvements in societies of the near future. It deals with almost similar topics as Cyberpunk, but in a more hopeful manner. In Post-Cyberpunk science fiction, the characters go through comparable circumstances as the characters in Cyberpunk but they attempt to defend the existing state of the world as portrayed in the stories, and they attempt to develop social positions.

Cyberpunk: an overview

The term cyberpunk designates a literary movement in the science fiction genre, in the United States, combining high technologies and urban chaos; is considered as a typically postmodern narrative. The term also came to be used to designate cyber rebels, the computer underground, with hackers and crackers. Those would be the real cyberpunks. Thus, the term cyberpunk is, at the same time, an emblem of a current of science fiction and a mark of characters from the computer underworld. Written by young authors, the science fiction genre that would later be called cyberpunk took shape throughout the first half of the 1980s in Fanzines and other American and European publications.

The movement, at that time still without a name, had its focal point in the Fanzine Cheap Truth, authored by Bruce Sterling. Released in 1982, Cheap Truth was a one-page pamphlet, distributed free of charge, with texts published without copyright. The texts were published under pseudonyms, in an attempt to minimize the cult of personality. Cyberpunk fiction is set in a dystopian near future, in which technology was taken over the streets, deviated from the one best way and did not solve any of the social problems it promised to solve, thus it is the opposite of modern utopia. For modernity, science and technology would be the main factors for improving the conditions of human existence. The futurism of modern technoculture has become the presenteeism of postmodern cyberculture.

The cyberpunk stories spoke of marginalized individuals in cultural environments of high technology and urban chaos, hence the origin of the name, putting in synergy, cyber, of cybernetic machines; computer technology, mass media, neural implants, etc., and punk, from the do-it-yourself attitude of the English punk movement of the 1970s. Frequently, these technological systems extended to the human components, through mental implants, prostheses, cloning, through beings created by genetic engineering (replicants). This is the cyber part of cyberpunk fiction. Yet, as in any culture, there were those who lived as outcasts, on the edge: criminals, outcasts, activists and visionaries. The narrative's focus is on those individuals and how they subverted the use of technological tools created by the system, for various purposes. This is the punk part of cyberpunk fiction.

Bruce Bethke coined the word cyberpunk for the first time in 1980 as a title for his short story which was published in 1983 in Amazing Stories. The idea behind writing *Cyberpunk* had to do with a trio of kids who came into his store. They began to putter with the demo computer for a moment, and then they left the store. He discovered that his demo program was destroyed and a new one was installed. He, a few minutes later, was able to reload his demo program. This was the motive for writing his story. He thought about the word that suited this type of teenagers.

> The kids who trashed my computer; *their* kids were going to be Holy Terrors, combining the ethical vacuity of teenagers with a technical fluency we adults could only guess at. Further, the parents and other adult authority figures of the early 21st Century were going to be terribly ill-equipped to deal with the first generation of teenagers who grew up truly "speaking computer". (Bethke, 1997, Para.12)

The actual story is, by contemporary guidelines, mediocre. A group of boisterous teenagers cut school and go joyfully surfing the Net on their portable computers. They cause destruction and act on bad guys. The legend is a decent youngster who's fallen in with a terrible group; his family at last acknowledges something is off-base and attempts to stop the relationship. This finally results in the young man incorporating his specialized abilities of the conscious mind, defying his family and winning, given the fact that the change in perspective is entirely self-supporting.

The term (cyberpunk), later, has been used by Gardner Dozois, editor of Isaac Asimov's Science Fiction Magazine, to indicate a sub-genre of science fiction stories. He has used it to depict the "80s generation in sf, ….. the similarities in goals and aesthetics between them are much stronger.."(Dozois, 1984. Para. 3). He indicates that those science fiction writers have similarities more than differences. The word cyberpunk began to be used for the movement's literature when Gardner Dozois coined the term in 1983, from a homonymous story written by Bruce Bethke. Gardner Dozois was referring to a group of American writers such as Bruce Sterling, Rudi Rucker, Lewis Shiner, John Shirley, Pat Cadigan and William Gibson, whose literary production had a number of characteristics in common. In 1984, William Gibson published *Neuromancer*, and Gardner Dozois wrote an essay in *The Washington Post*, in which he classified Gibson, Shirley, Sterling, Shiner, among others, as cyberpunk writers. One of the first narratives to bring together some of these characteristics of this movement, however, was True Names, by Vernor Vinge, published in 1981. The one who became best known was William Gibson, for his work *Neuromancer*, in 1984, the term cyberspace is used for the first time.

The novel won the most important prizes for science fiction literary production: the Hugo, the Nebula and the Philip K. Dick. William Gibson's style was also influenced by the detective novel *Noir*, by Raymond Chandler and Dashiell Hammett. In Gibson's cyberpunk fiction, the controlled world of conventional science fiction enters a mundane scenario of urban chaos typical of large contemporary metropolises. In *Neuromancer*, Case, the protagonist, is coerced by the mega corporation system. He, along with Molly, are hired by a mysterious boss who offers, in exchange for the service of breaking into computer systems, solutions to the problem of microtoxins implanted in his body and which will kill him soon. Case, is as such, a cowboy of cyberspace, as described by Gibson. "You're a console cowboy. The prototypes of the programs…" (Gibson,1984. p. 22)

Cyberpunk is a fiction that reflects the daily life of contemporary times. As William Gibson, one of the movement's most important authors believes, cyberpunk is not concerned with alien monsters or intergalactic conquests, but a parody of the present. Thus, the universe of cyberpunk science fiction brings together the realm of cutting-edge technology and the rationality of hard science, on the one hand, and the underground, the dictatorial power of mega corporations, artificial intelligence, viruses and urban chaos, on the other. Things are very much similar to what people are living at the turn of the 21st century.

Kim Stanley Robinson, an American science fiction writer, presents a definition of cyberpunk. His definition is like a recipe that reflects various characteristics of this subgenre of science fiction. It manifests the major works and authors who have influenced cyberpunk science fiction writers:

> One cup *film noir,* one cup Bester, two tablespoons *Blade Runner*, one tablespoon James Bond, a dash of Delany, "several thousand micrograms" (for those who don't speak Cyberpunk), a half gram of Dexadrine; mix thoroughly, …… Bake at full heat for three years, then let simmer. Serves two good writers and hangers-on. (James, 1994. p.195)

He declares that the writers of cyberpunk followed the previous authors of science fiction like Samuel Delaney and Alfred Bester. He also shows how the close interaction between cyberpunk and the common street culture. Bruce Sterling, the spokesman of this subgenre, in *Mirrorshades: The cyberpunk Anthology* says that cyberpunk has been found from the genre of science fiction. "…against the tradition, not as an invasion but as a modern reform" (Sterling, 1986, p.xv).

The cyberpunk movement was hailed for bridging two other science fiction genres: hard science and new wave. Hard science was very successful at the beginning that is in the 40s and 50s, by centring on speculation about the technological possibilities. Among the most representative names of that time are: Paul Anderson, Hal Clement and Gregory Benford.

New wave, on the other hand, is the daughter of the political activism of the 60s and 70s. The best known authors are Norman Spinrad, Harlan Ellison, Michael Moorcocke and Samuel R. Delany, who address the issue of alienation in a high-tech future. The themes dear to cyberpunk authors show well a mixture of these two science fiction genres. From hard science, cutting-edge technology is inherited: body implants (circuits, artificial organs, drugs, plastic surgery, genetic change, and brain interface), artificial intelligence, neurochemistry, virtual worlds, viruses, and nanotechnology. New wave gave the attitude of the counterculture. Other authors who influenced the cyberpunk movement were William Burroughs and Thomas Pynchon. Although they did not write science fiction, they captured the spirit of the era marked by sex, drugs and rock'n' roll terminology.

Özlem Şahin Soy, in her PhD thesis, introduces a definition of cyberpunk by Peter Nickolls who defines the term by focusing on the word itself. On the one hand, 'cyber', the first part of the word, belongs to cybernetics. It refers to the networks and how they control political and industrial blocks and which become global rather than national. It denotes the interaction between the human body and the machine. Nickolls mentions Gibson's *Neuromance* in reference to virtual reality where people can enter cyberspace through a certain type of a machine. On the other hand, 'punk' refers to a counterculture of the 1970s.

> The "cyber" part of the word relates to cybernetics: to a future where industrial and political blocks may be global (or centred in space habitats) rather than national, and controlled through information networks; a futile place in which machine augmentations of the human body are commonplace, as are mind and body changes brought about by drugs and biological engineering. Central to Cyberpunk fictions is the concept of virtual reality, as in Gibson's *Neuromancer* sequence, where the world's data networks form a kind of machine environment into which a human can enter by jacking into a cyberspace deck and "projecting his disembodied consciousness into the matrix. The "punk" part of the word comes from the rock'n' roll terminology of the 1970's "punk" meaning in this context young, alienated and offensive to the Establishment. (Nickolls,1995, as cited in Soy, 2012, pp. 11-12)

Through satire, dark humour and what Americans call streetwise intelligence that is learned on the street and not in school – the authors of science fiction were insolently criticizing the American way of life, and they influenced the birth of the counterculture of the 60s.

Science fiction, generally, deals with the influences of modern technology on human life. Bruce Sterling, however, sets a part Cyberpunk from earlier science fiction in that it considers technological advancement not simply a case that impacts people but as something extremely near man, much within his body, in mind, "as a part that is completing him, or even sometimes controlling him" (Sterling, 1986: xiii). The protagonists of cyberpunk stories are anti-heroes who transit with implants (cyborgs) through physical and informational spaces in a socio-political scenario in which gigantic corporations dominate all aspects of society to the point of replacing national governments. The cyberpunk protagonists are faced with situations related to the daily life of today's large metropolises, ravaged by urban chaos, crime, pollution and the degradation of social relations. Even though they are dystopias, the stories go beyond the duality between technophilia and technophobia that marked science fiction until then.

An attempt to tame technology

Embedding the actions of cyberpunk works in the near future meant that the projected visions were verified by reality. With the spread of computer technology in the non-literary world, the fears and anxieties about technological progress have partially disappeared. The products of technology are no longer perceived as a threat when people started using them in their daily lives. With the change in attitude towards technology, cyberpunk itself has also evolved. It was replaced by post-cyberpunk, presenting a much less pessimistic vision of the future world. Technology is no longer alien and dangerous as it becomes part of society and people accept its existence and use it every day. It is also closer to contemporary scientific and technical achievements. The post-cyberpunk protagonists are not alienated; they do not belong in the margins, but rather the middle class. Person (1999, Para.7) explains that post-cyberpunk characters "have families, and sometimes even children. …. They're anchored in their society rather than adrift in it. They have careers, friends, obligations, responsibilities, and all the trappings of an ordinary life." They live in harmony with society; they are educated and they have legal work, friends, family and children. They fulfil their daily duties and face problems typical of a modern man. They do not test the existing social order, but function in it, looking for methods for its consolidation and evolution to a more perfect form. Post-cyberpunk authors pay just as much attention to the social situation of the heroes, as well as technological issues. Works of this genre are by definition less serious, with humorous themes and games with convention. However, it appears that interest in cyberpunk issues has returned in recent years. Perhaps this is due to the fact that the modern world is closer to cyberpunk visions than ever before.

A new generation of writers is trying to capture the dynamics of the current social and cultural changes caused by the evolution of digital technologies, the increasing productivity of computers and the spread of virtual reality systems in private homes. Currently, it is not difficult to come across media reports of the use of advanced implants in medicine or advances in works on artificial intelligence. Visions projected by cyberpunk precursors become probable again, which force people to reflect on the direction of the changes taking place. The authors of the new generation do not miss it, and in their works they reactivate this trend, giving it a new shape. Contemporary cultural texts can be described as cyberpunk after post-cyberpunk, as they question the works present in post-cyberpunk works. An example of a new incarnation of cyberpunk is the Altered Carbon series, commissioned by Netflix. Its creators bring back the fears and anxieties accompanying social transformations in the era of dynamic expansion of digital media, presenting a dystopian vision of the world under the primacy of technology.

The ending or the expansion

One of the criticisms levelled at the cyberpunk movement is that the authors did nothing more than reprocess a series of trends that were already disseminated by the culture of the time. Thus, it is common for cyberpunk literature to use stylistic resources inherited from cinema, which postmodern literature, in general, does, with a narrative speed that follows the aesthetics of music television videos and TV commercials. Cyberpunk is a typical phenomenon of the media universe of the 80s. In the late 80s, the media announced the end of cyberpunk. Arthur and Mari-louise Kroker wrote in Hacking the future that cyberpunk ended with the making of the film *Johnny Mnemonic* (1995).

It is in this sense that in the article "Is cyberpunk still breathing?", a review of two releases that took place in 1998, Andrew Leonard shows that cyberpunk no longer has an impact: "As a genre, cyberpunk is washed up, as outmoded as a 1980s hard drive."(Para.2) The real world became the imaginary world in a very short time. Dead or not, cyberpunk literature has become a societal phenomenon.

Tom Maddox, in his article "After the Deluge: Cyberpunk in the 80s and 90s", says that people who claim cyberpunk is dead and there is no more place for it, are those who do not like this type of science fiction. After reaching such level of fame, it should step aside and let the stage for other genres.

> ..by the end of the '80s, people who never liked it much to begin with were announcing with audible relief the death of cyberpunk: it had taken its canonical fifteen minutes of fame and now should move over and let something else take the stage. (Maddox, n.d., para 16).

Maddox, on the other hand, considers that the movement / style took on such new, differentiated forms that it permeated the culture and therefore, could no longer be easily identified. Maddox emphasises "Cyberpunk had not died; rather, like Romanticism and Surrealism before it. Cyberpunk is the fictive voice of that process, and so long as the process remains problematic- for instance, so long as it threatens to redefine us- the voice will be heard" (Maddox, n.d., para 17-19).

The themes of this sub-genre of science fiction were appropriated and rethought by different writers and its figures of speech moved into different media. Also, the subculture became assimilated into the standard, something that the opponents of the Movement "there to declare cyberpunk dead."(Sterling, 1998, Para.1). But on the contrary, some consider that change in the concept as a positive development that makes it more expanded. Thomas Foster (2005, p. xiv), in any case, brings up, that "the change of cyberpunk into an integrated concept instead of loose association of writers…a sea change into a more generalized cultural formation." It should not be figured out as the death of Cyberpunk but rather as its expansion and popularity.

The subject generated reports in several publications, from non-specialized publications such as *The Wall Street Journal* and *Times*, to magazines such as *Mondo 2000*, *Wired* and MTV. Dead or not, cyberpunk fiction has seen the 21st century in perspective. The Matrix film trilogy, based on Gibson's work, shows the current direction of the movement. In the full development of cyber-culture worldwide, the dystopian vision of authors of cyberpunk seems to become a reality in the 21st century. Internet, cyberspace, viruses, hacking, mega corporations, surveillance, cyber rebel tribes and activists; all the elements of cyberpunk science fiction are among us. It is up to the reader to choose between the blue pill and the red pill.

Conclusion

The domain of cyberpunk culture texts is the question about the impact of advanced technologies (for example, computer technology and network technologies) on human life and the accompanying critical reflection, usually marked by pessimism. In the near future - as the authors of cyberpunk fictionalize - the world will be dominated by digital devices to such an extent that the life of the individual and entire societies will be completely subordinated to them. In cyberpunk works, technology is ubiquitous; it penetrates the minds and bodies of people, making them its slaves. Dependence on it becomes the cause of the disintegration of personality and requires a redefinition of one's own identity in the face of rapid technological and civilizational changes. Contrary to conventional science fiction, technology has a clear impact on people and their daily lives in the texts of cyberpunk culture.

The new trend of cyberpunk undermines the validity of the assumption put forward in post-cyberpunk works, in which technology is not perceived as a threat and is tamed by society, becoming an integral part of it. The vision of the future presented by the creators is far from optimistic. It shows a technologized world in which technology enslaves and dehumanizes society. It reactivates the issues raised by the pioneers of the trend in the 1980s, updating selected threads and themes developed by artists such as: William Gibson, Rudy Rucker, Lewis Shiner, John Shirley and Bruce Sterling. On this basis, it can be concluded that cyberpunk is still functioning, still developing and undergoing various transformations. The creativity of the new generation of cyberpunk authors makes us reflect on the direction of the development of modern society and it is at the same time a form of warning against the uncontrolled development of modern technologies. The publications of today prove that cyberpunk culture texts lead people to believe that technology is not bad in nature, but that it is misused.

References

Bethke, Bruce.(1997) *The Etymology of 'Cyberpunk'*. https://web.archive.org/web/20130716211015/http://www.brucebethke.com/articles/re_cp.html.

Dozois, Gardner. (1984). "Science Fiction in the Eighties." In: Washington Post. https://www.washingtonpost.com/archive/entertainment/books/1984/12/30/science-fiction-in-the-eighties/526c3a06-f123-4668-9127-33e33f57e313/.

Foster, Thomas. (2005). *The Souls of Cyberfolk: Posthumanism as Vernacular Theory*. Minneapolis: U of Minnesota P.

Gibson, William. (1984). *Neuromancer*. New York: Ace.

James, Edward. (1994) *Science Fiction in the Twentieth Century*. Oxford University Press, Walton Street, Oxford 0 X 2 6DP.

Leonard, Andrew.(1998). *Is cyberpunk still breathing?* https://www.salon.com/1998/09/14/books_26/.

Maddox, Tom.(n.d.) *After the Deluge: Cyberpunk in the 80s and 90s*. http://www.ecn.org/settorecyb/txt/tom_maddox_sul_cyberpunk.html.

Person, Lawrence. (1999). *Notes Toward a Postcyberpunk Manifesto*. https://news.slashdot.org/story/99/10/08/2123255/.

Soy, Özlem Şahin. (2012). *Cyberpunk Fiction: The Works of William Gibson and Bruce Sterling as Examples of the post-1980s Science Fiction Tradition*. Ankara. T.C. Ankara Üniversitesi Sosyal Bilimler Enstitusu Bati Dilleri Ve Edebiyati.

Sterling, Bruce (1986), *Mirrorshades: The Cyberpunk Anthology*, New York: Acebooks.

Sterling, Bruce. (1998). *Cyberpunk in the Nineties*. http://lib.ru/STERLINGB/interzone.txt

Vinge, Vernon. (1981). *True Names*. New York. Binary Star #5, ed. James R. Frenkel. Dell Publishing. Tor. 241-330.

Walter, D. (2012). *Why Science Fiction is the literature of change*. damiengwalter.com. https://damiengwalter.com/2012/01/06/why-science-fiction-is-the-literature-of-change/.